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Technical Report 469

# FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL ORGANIZATION QUESTIONNAIRE

Bruce S. Sterling and John R. Mietus

ARI FIELD UNIT, USAREUR

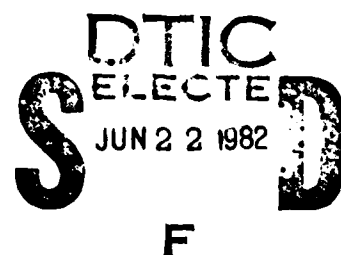
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factors measuring Unit Climate, Supervisory Leadership, Group Cohesion, and Mission Accomplishment. Only two of the four original GOQ dimensions received empirical support. Not only was the factor structure stable between organizations, but the amount of variance accounted for by a particular factor (or psychological importance of that factor) was also stable. Results suggest that the GOQ, if organized along empirically supported lines, is a diagnostic instrument which is equally applicable to various Army organizations.

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**Technical Report 469**

# **FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL ORGANIZATION QUESTIONNAIRE**

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**Office, Deputy Chief of Staff for Personnel  
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**Organizational  
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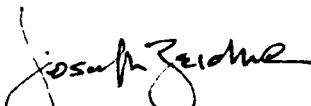
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## FOREWORD

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The research reported here was accomplished by the Leadership and Organizational Effectiveness Work Unit, U.S. Army, Europe, Field Unit of the Army Research Institute for the Behavioral and Social Sciences. This unit's primary objective is the enhancement of combat readiness through research on improving organizational processes. The research is responsive to Army Project 2Q762722A779, Techniques for Organizational Effectiveness; Management Training, FY79 Work Program; and Project 2Q162722A791, FY80 Work Program.

The complex, rapidly changing environment of the modern Army makes it imperative that organizational leadership, climate, and processes function optimally. The Leadership and Organizational Effectiveness Work Unit researches personal, small-group, and macro-organizational functioning in work settings, specifically in USAREUR, in an attempt to increase combat readiness and quality of life. The present technical report continues the study of the internal structure of an instrument designed to diagnose these variables.

  
JOSEPH ZEIDNER  
Technical Director

FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL ORGANIZATION  
QUESTIONNAIRE

BRIEF

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Requirement:

The purpose of this report is to determine empirically the stability, across organizations, of the factor structure of the General Organization Questionnaire (GOQ). The GOQ is the primary diagnostic organization climate survey instrument in the U.S. Army's Organizational Effectiveness Program.

Procedure:

Samples of 2,167 Air Defense Headquarters battery and 493 Mechanized Infantry company personnel in U.S. Army, Europe (USAREUR) responded to the GOQ in 1977 and 1978. Responses to 69 of the 84 items were factor analyzed in both samples; these items measure primary organizational processes. Five- and four-factor solutions in each sample were compared with each other and with the four a priori GOQ factors.

Findings:

A stable four-factor structure pattern was found in both samples; this was different from the a priori GOQ factor structure. Factors were Unit Climate, Supervisory Leadership, Group Cohesion, and Mission Accomplishment. Also, the amount of variance accounted for by factors, hence their psychological importance, was the same across the two samples.

Utilization of Findings:

The findings of this study provide an empirical base for improving the diagnostic meaningfulness of this primary Organizational Effectiveness survey instrument. If organized along empirically supported lines, the GOQ could better serve as an instrument to evaluate organization climate in various Army organizations accurately and meaningfully.



FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL  
ORGANIZATION QUESTIONNAIRE

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## FACTOR STABILITY OF PRIMARY SCALES OF THE GENERAL ORGANIZATION QUESTIONNAIRE

### BACKGROUND

The U.S. Army is investing in an Organizational Effectiveness (OE) program to improve mission readiness (DA Letter 600-76-2, May 1976). OE is a process relying on accurate diagnosis of organizational functioning. The General Organization Questionnaire (GOQ) is the primary paper-and-pencil instrument used in this diagnosis. However, a recent study (Walizer & Mietus, 1979) has found the GOQ to have marginally adequate internal consistency scale reliabilities and considerable duplication between scales. This is a serious concern; the ability to make a pinpoint diagnosis is limited.

This paper has two purposes. The first is to compare the empirically determined item structure of the GOQ found in samples from two different Army organizations with the a priori item structure of the GOQ. The second is to determine whether there is a stable item structure for the GOQ across these samples from two different Army organizations.

One sample was drawn from air defense command (AADCOM) headquarters (HQ) battery personnel in U.S. Army, Europe (USAREUR). These units are high-technology organizations that are decentralized; that is, battalion units are spread out over a large area. The other sample consisted of mechanized infantry personnel from two USAREUR battalions. These are relatively standard Army technology organizations with a highly centralized chain of command, and all elements of a battalion located on the same kaserne. The questions asked in this report are (a) how applicable, to either of these samples, are the original dimensions of the GOQ, and (b) how generalizable are the empirically derived factors and/or original GOQ dimensions? In this specific instance, are the differences in tasks, organizational climates, job nature and relationships, operating environments, and technologies between the two types of units sufficient to affect factor structure? Little research has been done on this topic. Sims and La Follette's (1975) factor analytic study of the Litwin and Stringer (1968) Organizational Climate Questionnaire found a factor structure that was different from the a priori structure. Muchinsky (1976), in discussing the factor structure of the Litwin and Stringer questionnaire, reviewed four research efforts related to this question (Meyer 1968; Downey, Hellriegel, Phelps, & Slocum, 1974; Sims & La Follette, 1975; and Muchinsky, 1976) and concludes that while superficially there seems to be considerable factor communality, there is not when actual item loadings are examined. The author concluded that it is logical that different structures be found for different types of organizations. Organizational climate, in one research tradition, involves perceptions of work environments that are the results of organization practices and procedures. Differing organizational practices and procedures should produce different climates (Schneider, 1975), hence different factor structures. Woodman and King (1978) conclude that the factor structure of organizational climate instruments cannot be assumed to generalize from one type of organization to another.

## METHOD

### Subjects

Subjects from the AADCOM sample were 2,167 personnel of all ranks at company level from all HQ batteries of an air defense command in USAREUR. The data were collected in late 1977. The mechanized infantry sample consisted of 493 enlisted personnel and noncommissioned officers from two mechanized infantry battalions in the same brigade in USAREUR. Data were collected in 1978.

### Instrument

The GOQ is a standard Army instrument used in the OE program. The 84 items that purportedly measure 21 areas of organizational functioning are presented in Table 1. Major indices and question patterns resemble the Survey of Organizations of the Institute for Social Research (Taylor & Bowers, 1972). Only items 1 through 69 of the total 84 items were included in this factor analysis. Items 1 through 69 measure primary organizational climate processes, and items 70 through 84 measure tangential climate issues. The GOQ is shown in the Appendix.

### Analysis

Principle factoring with iteration and varimax rotation from the Statistical Package for the Social Sciences (SPSS) (Nie et al., 1975) was used to analyze the data. Also, a coefficient of congruence was used to compare empirically the factor solutions of the factor analyses using the same variables in the two different samples (Harmon, 1967). The coefficient of congruence is similar to a Pearson  $r$  in that it can range from  $\pm 1.00$  (i.e., a perfect positive or inverse relationship), with zero indicating no relationship. A coefficient of congruence of .90 or above is considered sufficient to establish good factor congruity (Mulaik, 1972).

## RESULTS AND DISCUSSION

### The Five-Factor Solution, AADCOM Sample

The original factor analysis yielded 10 factors with eigenvalues greater than 1.00. However, examination of the 10-factor rotated solution revealed that only 6 of the 69 items had loadings equal to or greater than .30 on Factors 6 to 10 combined. Of Factors 1 through 5, the factor with the fewest items loading greater than or equal to .30 was Factor 5, and it had 6 such loadings alone. Thus, a five-factor solution seemed optimal and was generated. This five-factor solution is discussed below.<sup>1</sup>

---

<sup>1</sup>Since the order in which these factors are listed is arbitrary, the factors are listed to simplify comparison with the original GOQ dimensions. Later, other factors in this report are also organized to simplify comparison with previously reported factor analyses.

Table 1  
GOQ Dimensions and Indexes

Area	Items numbered	Total no. of items
<u>I. Unit Climate</u>		
1. Communication Flow	1-2	2
2. Decisionmaking	3-6	4
3. Motivation	7-10	4
4. Integration of Personnel and Mission	11-16	6
5. Identification with Unit	17-19	3
6. General Climate	20-27	<u>8</u>
		27
<u>II. Supervisory Leadership</u>		
1. Support	28-31	4
2. Teamwork	32-33	2
3. Goal Emphasis	34-37	4
4. Work Facilitation	38-43	6
5. Influence	44-45	<u>2</u>
		18
<u>III. Co-Worker Interaction</u>		
1. Support	46-47	2
2. Teamwork	48-51	4
3. Work Facilitation	52-53	2
4. Peer Influence	54-55	<u>2</u>
		10
<u>IV. Work Group Processes</u>		
1. Coordination	56-57	2
2. Readiness	58-65	8
3. Discipline	66-67	2
4. Intergroup Cooperation	68-69	<u>2</u>
		14
<u>V. Effects on Personnel</u>		
1. Satisfaction	70-74	5
2. Equal Opportunity	75-84	<u>10</u>
		15
Total		84

The five-factor rotated solution is reported in Table 2. Variables loading .30 or higher on a factor are underlined. Thus, certain items may load on more than one factor, while others may not load on any.

The first factor, Unit Climate, responsible for 10% of the variance among items, is a good match to the GOQ's Unit Climate dimension, although it appears Unit Climate in the original 84-item GOQ is also defined as Work Group Processes (items 61, 66 to 69) and Supervisory Leadership (items 38, 44).

The second factor, Supervisory Leadership, accounting for 12% of the item variance, is very similar to the GOQ Supervisory Leadership dimension. Only three items (54, 57, 64), which load at .30 or greater on this scale, are assigned elsewhere on the 84-item GOQ. This leadership dimension contains both items traditionally seen as consideration type items (e.g., "My supervisor makes it easy to talk to him") and items usually viewed as measuring initiating structure (e.g., "My supervisor maintains high standards").

The third factor, which accounts for 10% of the variance among the items, seems reasonably close to the third GOQ dimension, Co-Worker Interaction. However, perhaps a better name for this particular group of items is Group Cohesion, since it pictures a group that is "solid" internally (e.g., "I have the trust and support of my co-workers," "Co-workers discuss differences honestly) and that can respond to external demands as well (e.g., "People in my group work hard," "The group meets requirements of higher-ups").

The fourth factor, accounting for 5% of the variance, does not bear much relationship to any of the standard GOQ dimensions. It measures Mission Accomplishment (e.g., "My group can respond on short notice," "My supervisor wants mission accomplishment").

The fifth factor seems to tap Personal Job Fulfillment (e.g., "I get a sense of accomplishment from my job," "I'm working in a job for which I am trained," "I would stay in the unit for as long as possible"). This last factor explains 4% of the total variance and is also different from any GOQ factor.

#### The Five-Factor Solution, Mechanized Infantry Sample

The initial unrotated factor analysis on the data from the mechanized infantry sample generated 13 factors. However, the eigenvalue dropped below one after the fifth factor, suggesting the data contained, at most, five valid factors. Thus, a five-factor rotated solution was generated. This five-factor solution is examined below.

The five-factor rotated solution for the mechanized infantry sample is presented in Table 3. Factor loadings of .30 or over are underlined. Table 4 compares the original dimension structure of the GOQ with the five-factor solutions from both samples. Coefficients of congruence are shown in Table 5.

Unit Climate, accounting for 9% of the variance in the present sample, is similar to the Unit Climate factor in the previous sample. When comparing

Table 2

## Five-Factor Solution, AADCOM Sample

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Personal Job Fulfillment
01	Information through channels is accurate	.45	.21	.11	.12	.18
02	Get all info about other sections	.44	.15	.12	-.05	.14
03	Work priorities in line with objectives	.57	.09	.06	.08	.10
04	Meetings accomplish meaningful objectives	.57	.12	.15	.09	.11
05	Decisions made at levels of best info	.57	.14	.08	.12	.12
06	Decisions made from info from actual workers	.53	.14	.10	.00	.17
07	People in group work hard	.08	.13	.34	.26	.09
08	Get a sense of accomplishment from job	.21	.18	.17	.25	.56
09	Look forward to coming to work	.38	.18	.15	.05	.55
10	Want to do best for the mission	.18	.15	.13	.35	.35
11	Unit interested in personal welfare	.60	.20	.16	.05	.23
12	Job helps me achieve personal goals	.32	.14	.13	.11	.55
13	Enough time off to tend personal-family needs	.28	.25	.11	.05	.23
14	Performance evaluations are helpful	.24	.25	.13	.19	.29
15	Unit places high emphasis on mission	.43	.16	.08	.34	.04
16	Workload is considered in planning	.56	.22	.12	.06	.16
17	Would stay in unit as long as possible	.46	.16	.11	-.02	.32
18	Unit is respected on this post	.51	.11	.14	.10	.17
19	Job respected on this post	.38	.16	.15	.15	.31
20	Not afraid to make a mistake	.11	.14	.05	.22	.17
21	Unit willing to try new methods	.52	.27	.14	.14	.13
22	Enough competition emphasis	.45	.12	.13	.18	-.02
23	Rules in unit are enforced	.45	.11	.11	.20	-.16
24	Little interference from outside units	.21	.07	.02	.13	.01
25	Unit able to respond to all goal demands	.20	.14	.12	.29	.15
26	Job directly related to meeting unit's goals	.24	.16	.15	.43	.24
27	Unit able to respond to all goal demands	.45	.09	.12	.38	.06
28	Supervisor says when my job's well done	.24	.62	.16	.03	.18
29	Supervisor makes it easy to talk to him	.17	.65	.17	.08	.19
30	Supervisor appropriately supports me	.16	.68	.17	.17	.18

Table 2 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Personal Job Fulfillment
31	Easy to get to see supervisor	.11	.51	.13	.31	.13
32	Supervisor emphasizes teamwork	.17	.62	.22	.27	.05
33	Supervisor wants differences discussed	.18	.63	.22	.13	.14
34	I know my work group mission	.16	.33	.27	.43	.20
35	Supervisor wants mission accomplishment	.18	.50	.20	.46	.01
36	Supervisor wants us to give best effort	.14	.57	.18	.41	.01
37	Supervisor maintains high standards	.19	.63	.16	.32	.03
38	Conflicting demands up chain rarely made	.39	.18	.10	.06	.12
39	Supervisor doesn't interfere in my work	.17	.51	.12	.26	.18
40	Supervisor gives clear instructions	.21	.64	.16	.20	.10
41	Supervisor shows me how to improve	.20	.68	.20	.03	.06
42	Supervisor helps me plan ahead	.26	.61	.26	-.07	.08
43	Supervisor insures all material available	.31	.56	.24	.01	.10
44	Supervisor is heard by those above him	.33	.50	.15	.10	.09
45	Supervisor is highly regarded by group	.23	.68	.20	.07	.08
46	Co-workers tell me if my job is well done	.20	.16	.60	-.03	.15
47	Have trust and support of co-workers	.08	.13	.68	.16	.14
48	Co-workers work together as a team	.12	.15	.77	.13	.04
49	Co-workers want best effort from each other	.15	.16	.77	.09	.10
50	Co-workers maintain high standards	.17	.15	.75	.17	.06
51	Co-workers discuss differences honestly	.15	.21	.64	.07	.07
52	Co-workers help in planning ahead	.24	.22	.70	-.01	.13
53	Co-workers offer new ideas to job problems	.10	.19	.69	.14	.05
54	I am given adequate authority to do job	.27	.39	.27	.18	.25
55	I have influence in group decisions	.07	.21	.49	.21	.23
56	Important info is exchanged in my group	.22	.27	.51	.23	.14
57	My group coordinates its efforts	.24	.30	.60	.15	.14
58	I understand what is expected of me	.09	.25	.23	.43	.25
59	My group can respond on short notice	.08	.18	.40	.50	.08
60	Group meets requirements of higher ups	.13	.15	.37	.45	.10
61	Supplies and equipment are adequate	.38	.25	.17	.07	.09
62	I am working in job for which trained	.12	.07	.16	.24	.29

Table 2 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Personal Job Fulfillment
63	I'm training for more responsibility	.23	.28	.26	.20	.38
64	Supervisor is trained for job	.20	.49	.15	.18	.08
65	Group has enough qualified people in job	.24	.19	.23	.16	.06
66	Order and discipline maintained in group	.36	.23	.39	.28	.02
67	Group reflects military standards	.31	.17	.42	.24	.02
68	Cooperation is encouraged between groups	.43	.26	.34	.18	.03
69	I get assistance from other work groups	.38	.18	.30	.18	.08



Table 3  
Five-Factor Solution, Mechanized Infantry Sample

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Mission Orientation
Var 01	Information through channels is accurate	.41	.21	.12	.14	.19
Var 02	Get all info about other sections	.46	.17	.06	-.04	.01
Var 03	Work priorities in line with objectives	.36	.24	.05	.07	.33
Var 04	Meetings accomplish meaningful objectives	.53	.24	.19	.06	.15
Var 05	Decisions made at levels of best info	.51	.15	.07	.10	.26
Var 06	Decisions made from info from actual workers	.52	.15	.04	.03	.16
Var 07	People in group work hard	.09	.04	.52	.17	.08
Var 08	Get a sense of accomplishment from job	.46	.15	.22	.42	.02
Var 09	Look forward to coming to work	.62	.17	.15	.30	-.05
Var 10	Want to do best for the mission	.36	.22	.14	.43	.07
Var 11	Unit interested in personal welfare	.59	.18	.20	.12	.17
Var 12	Job helps me achieve personal goals	.58	.10	.19	.28	.01
Var 13	Enough time off to tend personal-family needs	.45	.25	.09	.08	.12
Var 14	Performance evaluations are helpful	.39	.23	.23	.29	.08
Var 15	Unit places high emphasis on mission	.11	.21	.15	.18	.42
Var 16	Workload is considered in planning	.44	.19	.14	-.03	.34
Var 17	Would stay in unit as long as possible	.48	.24	.19	.11	.12
Var 18	Unit is respected on this post	.30	.21	.17	.10	.26
Var 19	Job respected on this post	.37	.22	.30	.24	.15
Var 20	Not afraid to make a mistake	.09	.12	.03	.25	.12
Var 21	Unit willing to try new methods	.50	.14	.18	.18	.30
Var 22	Enough competition emphasis	.16	.04	.09	.16	.49
Var 23	Rules in unit are enforced	.14	.14	.12	.00	.48
Var 24	Little interference from outside units	.07	.10	-.05	.06	.32
Var 25	Unit able to respond to all goal demands	.25	.01	.03	.15	.19
Var 26	Job directly related to meeting unit's goals	.19	.18	.24	.44	.19
Var 27	Unit able to respond to all goal demands	.19	.20	.14	.32	.33
Var 28	Supervisor says when my job's well done	.34	.63	.13	.05	.02
Var 29	Supervisor makes it easy to talk to him	.30	.68	.15	.15	.04
Var 30	Supervisor appropriately supports me	.30	.67	.10	.15	.00

Table 3 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Mission Orientation
Var 31	Easy to get to see supervisor	.10	.57	.07	.17	.04
Var 32	Supervisor emphasizes teamwork	.13	.64	.13	.21	.17
Var 33	Supervisor wants differences discussed	.15	.68	.20	.15	.10
Var 34	I know my work group mission	.10	.31	.38	.31	.12
Var 35	Supervisor wants mission accomplishment	.01	.56	.17	.30	.25
Var 36	Supervisor wants us to give best effort	.09	.56	.15	.31	.18
Var 37	Supervisor maintains high standards	.13	.65	.11	.20	.21
Var 38	Conflicting demands up chain rarely made	.34	.21	.13	.04	.26
Var 39	Supervisor doesn't interfere in my work	.24	.44	.20	.17	.03
Var 40	Supervisor gives clear instructions	.25	.62	.17	.13	.13
Var 41	Supervisor shows me how to improve	.25	.65	.20	.03	.13
Var 42	Supervisor helps me plan ahead	.33	.59	.20	-.03	.18
Var 43	Supervisor insures all material available	.31	.61	.23	-.03	.16
Var 44	Supervisor is heard by those above him	.27	.50	.12	.00	.33
Var 45	Supervisor is highly regarded by group	.24	.62	.14	.03	.22
Var 46	Co-workers tell me if my job is well done	.07	.15	.62	.02	.01
Var 47	Have trust and support of co-workers	.06	.08	.74	.12	.02
Var 48	Co-workers work together as a team	.12	.12	.76	.03	.05
Var 49	Co-workers want best effort from each other	.14	.07	.82	-.02	.12
Var 50	Co-workers maintain high standards	.15	.11	.76	.08	.11
Var 51	Co-workers discuss differences honestly	.17	.17	.65	.07	.02
Var 52	Co-workers help in planning ahead	.28	.15	.71	.04	.09
Var 53	Co-workers offer new ideas to job problems	.09	.14	.63	.12	.07
Var 54	I am given adequate authority to do job	.37	.30	.32	.26	.01
Var 55	I have influence in group decisions	.24	.20	.50	.21	-.01
Var 56	Important info is exchanged in my group	.18	.21	.49	.30	.16
Var 57	My group coordinates its efforts	.24	.23	.58	.23	.11
Var 58	I understand what is expected of me	.13	.17	.21	.48	.14
Var 59	My group can respond on short notice	.03	.23	.43	.46	.17
Var 60	Group meets requirements of higher ups	.09	.17	.45	.41	.20
Var 61	Supplies and equipment are adequate	.38	.21	.26	.02	.10
Var 62	I am working in job for which trained	.20	.16	.16	.21	.13

Table 3 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment	Mission Orientation
Var 63	I'm training for more responsibility	.36	.28	.22	.26	.11
Var 64	Supervisor is trained for job	.16	.53	.13	.20	.24
Var 65	Group has enough qualified people in job	.21	.18	.26	.20	.35
Var 66	Order and discipline maintained in group	.21	.22	.41	.32	.35
Var 67	Group reflects military standards	.21	.18	.45	.25	.31
Var 68	Cooperation is encouraged between groups	.23	.29	.35	.21	.35
Var 69	I get assistance from other work groups	.30	.18	.35	.23	.17

Table 4  
Comparisons of Five-Factor Solutions with Original GOQ Dimensions

Original GOQ dimensions	Factors in AADCOM HQ btry sample	Factors in mech inf sample
Unit Climate	Unit Climate (10)	Unit Climate (9)
Supervisory Leadership	Supervisory Leadership (12)	Supervisory Leadership (12)
Co-Worker Interaction	Group Cohesion (10)	Group Cohesion (11)
Work Group Processes	Mission Accomplishment (5)	Mission Accomplishment (5)
--	Personal Job Fulfillment (4)	Mission Orientation (4)

Note. Percentage of variance accounted for by factor is enclosed in parentheses.

Table 5  
Coefficients of Congruence for the Five-Factor Solutions

AADCOM sample	Mechanized infantry sample			
	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment Orientation
Unit Climate	.92	.67	.58	.61
Supervisory Leadership	.69	.99	.58	.62
Group Cohesion	.57	.57	.99	.58
Mission Accomplishment	.53	.65	.63	.92
Personal Job Fulfillment	.85	.57	.85	.74

items with factor loadings at or above .30 on this factor in each sample, there are as many items that do not match as do match (18 items in each case). Nonetheless, the coefficient of congruence between these factors is .92. This empirically derived Unit Climate factor contains items from other original GOQ dimensions of Supervisory Leadership (28 to 30, 38, 42, 43), Co-Worker Interaction (54), and Work Group processes (61, 63, 69) as well as from the original Unit Climate factor (items 1 to 6, 8 to 14, 16 to 19, and 21).

Supervisory Leadership, accounting for 12% of the variance in the present sample, is very similar to the Supervisory Leadership factor in the previous sample. This factor taps both the traditional leadership components of Consideration (e.g., "It is easy for me to get in to see my supervisor," "When appropriate, my supervisor supports my decisions") and Initiating Structure (e.g., "My supervisor emphasizes mission accomplishment," "My supervisor ensures that all required materials are available to accomplish the job"). The items loading .30 or above on the Supervisory Leadership factor in both samples are identical with the exception of one item (57). These factors have 20 items in common. Harmon's coefficient of congruity between these two factors is .99. Of the items these factors have in common (i.e., with loadings of .30 or greater on both factors), all but two (54, 64) are in the Supervisory Leadership dimension in the original GOQ.

Group Cohesion, accounting for 11% of the variance in the present sample, is very similar to the Group Cohesion factor in the previous sample. This factor reflects not only group solidarity (e.g., "I have the trust and support of my coworkers," "My work group plans together and coordinates its efforts"), but also group responsiveness to external demands (e.g., "People in my work group work hard," "My work group meets all requirements placed on it by higher levels of command"), and discipline (e.g., "Army standards of order and discipline are maintained in my work group"). All but three of the items loading .30 or above (items 19, 34, 54) are the same in both samples. There are 18 items loading above .30 on this factor in both samples. The coefficient of congruity between these two factors is .99. However, this factor consists of items from all four original dimensions of the GOQ (mostly from Co-Worker Interaction and Group Processes) and thus fails to confirm empirically the original dimension structure of the GOQ.

The fourth factor, Mission Accomplishment, which accounts for 5% of the variance in the present sample, is fairly similar to the fourth factor in the previous sample, Mission Accomplishment. In this sample, the Mission Accomplishment factor taps the feeling that the job is worthwhile (e.g., "My job is directly related to meeting the unit's goals," "I get a sense of accomplishment from the work I do") and that the unit is trying to do the job (e.g., "My supervisor emphasizes mission accomplishment," "My work group is able to respond on short notice to heavy work demands placed on me"). Although there are seven items with loadings of .30 or above on this factor in one sample but not the other (items 8, 9, 15, 31, 37, 56, 66) and nine with loadings above .30 on both factors (items 10, 26, 27, 34 to 36, 58 to 60), Harmon's coefficient of congruence between the factors is still .92. This factor is not similar to any of the four original GOQ dimensions and in fact draws about an equal proportion of items from all but one of the original GOQ dimensions (Co-Worker Interaction).

The fifth factor, Mission Orientation, which accounts for 4% of the variance in this mechanized infantry sample, is not at all similar to the fifth factor in the AADCOM sample, Personal Job Fulfillment. In fact, no items loading .30 or more on either sample are the same, and the coefficient of congruity between the fifth factors in both samples is .37. Mission Orientation is fairly similar to the fourth factor in the present infantry sample, Mission Accomplishment. Mission Orientation seems to measure the unit's ability to focus energy on the mission, and away from extraneous things (e.g., "Work priorities are established in line with the unit's objectives," "There is little interference from outside units in doing our work"). Like the fifth factor from the previous sample, this factor is not similar to any dimensions in the original GOQ. Mission Orientation draws items mostly from the original GOQ dimensions of Unit Climate (items 3, 15, 16, 21 to 24, 27) and Work Group Processes (items 65 to 68).

#### The Four-Factor Solution, AADCOM Sample

Since the GOQ hypothesized four dimensions, a four-factor solution was computed for the AADCOM sample even though the original factor analysis implied that a five-factor solution was optimal. The four-factor solution for the AADCOM sample is reported in Table 6 and discussed below.

Unit Climate, comprising 10% of the total item variance, strongly resembles the GOQ Unit Climate dimension. However, like the Unit Climate factor of the previous five-factor solutions, this factor is also influenced by Work Group Processes (items 61, 63, 66, 68, 69), Supervisory Leadership (items 38, 43, 44), and item 54 from Co-Worker Interaction.

Supervisory Leadership, accounting for 11% of the variance, is quite similar to the GOQ Supervisory Leadership dimension. It includes one item concerning the supervisor (64) that is considered part of the GOQ Work Group Processes dimension and one item (54) that is part of the Co-Worker Interaction dimension.

Group Cohesion, accounting for 10% of the variance among items, is a mixture of the GOQ dimensions labeled Co-Worker Interaction and Work Group Processes. It is similar to the Group Cohesion factor of the five-factor solutions, since it reflects group solidarity (e.g., "My co-workers work together as a team," "My co-workers offer new ideas to solve job-related problems") and group esprit de corps ("Army standards of order and discipline are maintained in my work group," "My work group meets all requirements placed on it by higher levels of command").

Mission Accomplishment, making up 6% of the overall item variance, does not resemble any dimension of the original GOQ. It measures mission accomplishment from both a personal perspective (e.g., "I want to contribute my best efforts to the unit's mission and my assigned tasks," "I understand what is expected of me on my job") and from a group perspective ("This unit places high emphasis on accomplishing the mission," "This unit is able to respond to all demands put on it to accomplish the mission"). This factor is quite similar to the Mission Accomplishment factor of the five-factor solutions.

Table 6

## Four-Factor Solution, AADCOM Sample

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
01	Information through channels is accurate	.47	.20	.11	.16
02	Get all info about other sections	.47	.15	.12	-.01
03	Work priorities in line with objectives	.57	.08	.06	.10
04	Meetings accomplish meaningful objectives	.57	.11	.15	.11
05	Decisions made at levels of best info	.57	.14	.08	.13
06	Decisions made from info from actual workers	.56	.13	.10	.04
07	People in group work hard	.08	.13	.34	.28
08	Get a sense of accomplishment from job	.34	.17	.16	.42
09	Look forward to coming to work	.51	.17	.15	.24
10	Want to do the best for the mission	.25	.14	.13	.44
11	Unit interested in personal welfare	.64	.19	.16	.11
12	Job helps me achieve personal goals	.45	.13	.13	.29
13	Enough time off to tend personal-family needs	.33	.24	.11	.12
14	Performance evaluations are helpful	.31	.24	.13	.28
15	Unit places high emphasis on mission	.39	.17	.08	.31
16	Workload is considered in planning	.58	.22	.12	.10
17	Would stay in unit as long as possible	.54	.15	.11	.09
18	Unit is respected on this post	.53	.10	.14	.14
19	Job respected on this post	.44	.15	.15	.25
20	Not afraid to make a mistake	.14	.13	.05	.26
21	Unit willing to try new methods	.53	.27	.14	.16
22	Enough competition emphasis	.41	.13	.13	.15
23	Rules in unit are enforced	.36	.12	.11	.11
24	Little interference from outside units	.19	.07	.02	.12
25	Unit able to respond to all goal demands	.22	.13	.12	.32
26	Job directly related to meeting unit's goals	.26	.16	.14	.48
27	Unit able to respond to all goal demands	.41	.09	.12	.36
28	Supervisor says when my job's well done	.28	.61	.15	.09
29	Supervisor makes it easy to talk to him	.22	.64	.16	.14
30	Supervisor appropriately supports me	.20	.67	.16	.23

Table 6 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
31	Easy to get to see supervisor	.12	.51	.12	.34
32	Supervisor emphasizes teamwork	.17	.62	.22	.27
33	Supervisor wants differences discussed	.21	.62	.21	.17
34	I know my work group mission	.18	.33	.26	.47
35	Supervisor wants mission accomplishment	.15	.50	.20	.42
36	Supervisor wants us to give best effort	.11	.57	.18	.38
37	Supervisor maintains high standards	.18	.63	.16	.30
38	Conflicting demands up chain rarely made	.40	.18	.10	.09
39	Supervisor doesn't interfere in my work	.20	.51	.12	.31
40	Supervisor gives clear instructions	.22	.64	.15	.21
41	Supervisor shows me how to improve	.21	.68	.20	.05
42	Supervisor helps one plan ahead	.28	.61	.26	-.05
43	Supervisor insures all material available	.34	.56	.24	.03
44	Supervisor is heard by those above him	.34	.50	.15	.12
45	Supervisor is highly regarded by group	.25	.67	.20	.09
46	Co-workers tell me if my job is well done	.24	.15	.59	.03
47	Have trust and support of co-workers	.10	.12	.67	.21
48	Co-workers work together as a team	.11	.15	.77	.15
49	Co-workers want best effort from each other	.16	.16	.77	.13
50	Co-workers maintain high standards	.17	.15	.75	.19
51	Co-workers discuss differences honestly	.16	.20	.63	.09
52	Co-workers help in planning ahead	.26	.22	.70	.04
53	Co-workers offer new ideas to job problem	.10	.19	.69	.16
54	I am given adequate authority to do job	.32	.38	.26	.26
55	I have influence in group decisions	.12	.21	.48	.29
56	Important info is exchanged in my group	.23	.27	.51	.27
57	My group coordinates its efforts	.26	.30	.60	.19
58	I understand what is expected of me	.13	.25	.22	.49
59	My group can respond on short notice	.06	.19	.39	.50
60	Group meets requirements of higher ups	.11	.16	.36	.46
61	Supplies and equipment are adequate	.39	.25	.17	.09
62	I am working in job for which trained	.17	.06	.16	.33



Table 6 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
63	I'm training for more responsibility	.32	.27	.25	.32
64	Supervisor is trained for job	.21	.49	.15	.19
65	Group has enough qualified people in job	.24	.19	.23	.16
66	Order and discipline maintained in group	.33	.23	.39	.26
67	Group reflects military standards	.28	.17	.42	.23
68	Cooperation is encouraged between groups	.41	.26	.34	.17
69	I get assistance from other work groups	.37	.18	.30	.19

#### The Four-Factor Solution, Mechanized Infantry Sample

To enable comparison between the four-factor solution using the AADCOM sample, the original GOQ dimensions and the mechanized infantry sample, a four-factor rotated solution was computed on the mechanized infantry sample, even though the original factor analysis suggested that a five-factor solution was optimal. The four-factor rotated solution for the mechanized infantry sample is contained in Table 7. Factor loadings of .30 or above are underlined. A comparison of the factors from the two samples and the original GOQ dimension structure appears in Table 8. Coefficients of congruence are shown in Table 9.

Unit Climate, accounting for 10% of the variance in the mechanized infantry sample, is similar to the Unit Climate factor in the AADCOM sample. Although 11 items load at or above .30 on this factor in one sample and not the other (10, 15, 22, 23, 27 to 30, 42, 66, 68) and 24 items load at or above .30 on both factors, the coefficient of congruence between these two factors is still .97. Again, however, as in the five-factor solutions in both samples and four-factor solutions in the previous sample, Unit Climate is defined more broadly than in the original GOQ, including items from the original dimensions of Supervisory Leadership (28 to 30, 38, 42 to 44), Co-Worker Interaction (54), and Work Group Processes (61, 63, 69).

Supervisory Leadership, which accounts for 12% of the variance in the mechanized infantry sample, is quite similar to the Supervisory Leadership factor in the AADCOM sample. In fact, the variables loading .30 or above on this factor in both samples are the same except for two items (54, 57). There are 18 items loading .30 or above on this factor in both samples. The coefficient of congruence between these two factors is .99. Also, of the items loading at or above .30 on the factor in both samples, all but one (64) belong to the original GOQ Supervisory Leadership dimension.

Group Cohesion, accounting for 11% of the variance in this mechanized infantry sample, is similar to the Group Cohesion factor in the AADCOM sample. Only three items have factor loadings of .30 or above in one sample and not the other (19, 34, 54), while 18 have loadings of .30 or above on both samples. The coefficient of congruence between these two factors is .98. As with the five-factor solutions in both samples, this factor again measures group solidarity, responsiveness to external demands, and discipline. However, this factor again shows no similarity to any of the four original GOQ dimensions; it draws some items from all dimensions, but mostly from Co-Worker Interaction and Work Group Processes.

The fourth factor, Mission Accomplishment, accounting for 6% of the variance in the mechanized infantry sample, is similar to Mission Accomplishment in the AADCOM sample. Considering items loading .30 or more on each factor, there are more items that do not overlap (16 items) than those that do overlap (10 items). However, the coefficient of congruence between these factors is .92. Again, this Mission Accomplishment factor measures the extent to which the job is worthwhile and the unit's energy is focused on mission accomplishment. Also, this factor is not similar to any in the original GOQ; it contains items from all original dimensions except Co-Worker Interaction.

Table 7

## Four-Factor Solution, Mechanized Infantry Sample

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
Var 01	Information through channels is accurate	.42	.21	.12	.21
Var 02	Get all info about other sections	.46	.17	.06	-.05
Var 03	Work priorities in line with objectives	.40	.25	.03	.25
Var 04	Meetings accomplish meaningful objectives	.54	.24	.18	.12
Var 05	Decisions made at levels of best info	.54	.15	.06	.22
Var 06	Decisions made from info from actual workers	.53	.15	.03	.10
Var 07	People in group work hard	.10	.04	.52	.17
Var 08	Get a sense of accomplishment from job	.44	.15	.26	.29
Var 09	Look forward to coming to work	.58	.16	.18	.17
Var 10	Want to do the best for the mission	.35	.22	.17	.34
Var 11	Unit interested in personal welfare	.60	.18	.20	.17
Var 12	Job helps me achieve personal goals	.56	.10	.21	.19
Var 13	Enough time off to tend personal-family needs	.46	.25	.09	.11
Var 14	Performance evaluations are helpful	.38	.23	.25	.25
Var 15	Unit places high emphasis on mission	.15	.21	.13	.41
Var 16	Workload is considered in planning	.47	.19	.12	.19
Var 17	Would stay in unit as long as possible	.49	.24	.19	.14
Var 18	Unit is respected on this post	.32	.21	.16	.24
Var 19	Job respected on this post	.38	.21	.31	.27
Var 20	Not afraid to make a mistake	.10	.12	.04	.26
Var 21	Unit willing to try new methods	.52	.14	.18	.30
Var 22	Enough competition emphasis	.21	.05	.07	.42
Var 23	Rules in unit are enforced	.20	.14	.09	.30
Var 24	Little interference from outside units	.10	.10	.07	.25
Var 25	Unit able to respond to all goal demands	.27	.01	.03	.22
Var 26	Job directly related to meeting unit's goals	.20	.17	.26	.44
Var 27	Unit able to respond to all goal demands	.22	.19	.14	.45
Var 28	Supervisor says when my job's well done	.33	.63	.13	.03
Var 29	Supervisor makes it easy to talk to him	.30	.67	.17	.12
Var 30	Supervisor appropriately supports me	.30	.66	.12	.10

Table 7 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
Var 31	Easy to get to see supervisor	.10	.57	.08	.16
Var 32	Supervisor emphasizes teamwork	.14	.64	.13	.27
Var 33	Supervisor wants differences discussed	.16	.67	.20	.17
Var 34	I know my work group mission	.11	.30	.40	.31
Var 35	Supervisor wants mission accomplishment	.00	.56	.18	.40
Var 36	Supervisor wants us to give best effort	.10	.55	.16	.35
Var 37	Supervisor maintains high standards	.15	.65	.11	.29
Var 38	Conflicting demands up chain rarely made	.37	.21	.12	.19
Var 39	Supervisor doesn't interfere in my work	.23	.44	.21	.14
Var 40	Supervisor gives clear instructions	.26	.62	.17	.17
Var 41	Supervisor shows me how to improve	.26	.65	.19	.10
Var 42	Supervisor helps one plan ahead	.35	.59	.19	.08
Var 43	Supervisor insures all material available	.33	.61	.22	.07
Var 44	Supervisor is heard by those above him	.31	.50	.10	.21
Var 45	Supervisor is highly regarded by group	.26	.62	.12	.16
Var 46	Co-workers tell me if my job is well done	.07	.15	.62	.02
Var 47	Have trust and support of co-workers	.06	.08	.74	.09
Var 48	Co-workers work together as a team	.13	.12	.76	.04
Var 49	Co-workers want best effort from each other	.16	.08	.80	.06
Var 50	Co-workers maintain high standards	.17	.11	.76	.12
Var 51	Co-workers discuss differences honestly	.17	.17	.66	.05
Var 52	Co-workers help in planning ahead	.29	.15	.71	.07
Var 53	Co-workers offer new ideas to job problem	.09	.14	.63	.13
Var 54	I am given adequate authority to do job	.36	.29	.34	.18
Var 55	I have influence in group decisions	.23	.20	.51	.14
Var 56	Important info is exchanged in my group	.19	.21	.50	.32
Var 57	My group coordinates its efforts	.25	.23	.59	.23
Var 58	I understand what is expected of me	.14	.16	.24	.44
Var 59	My group can respond on short notice	.04	.23	.45	.45
Var 60	Group meets requirements of higher ups	.10	.17	.46	.43
Var 61	Supplies and equipment are adequate	.39	.21	.26	.06
Var 62	I am working in job for which trained	.20	.16	.17	.23

Table 7 (Continued)

Item no.	Label	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
Var 63	I am training for more responsibility	.37	.27	.24	.25
Var 64	Supervisor is trained for job	.18	.53	.13	.31
Var 65	Group has enough qualified people in job	.25	.18	.25	.37
Var 66	Order and discipline maintained in group	.23	.22	.41	.46
Var 67	Group reflects military standards	.24	.18	.44	.38
Var 68	Cooperation is encouraged between groups	.26	.29	.34	.37
Var 69	I get assistance from other work groups	.31	.18	.35	.27

Table 8  
Comparison of Four-Factor Solutions with Original GOQ Dimensions

Original GOQ dimensions	Factors in AACOM HQ btry sample	Factors in mech inf sample
Unit Climate	Unit Climate (10)	Unit Climate (10)
Supervisory Leadership	Supervisory Leadership (11)	Supervisory Leadership (12)
Co-Worker Interaction	Group Cohesion (10)	Group Cohesion (11)
Work Group Processes	Mission Accomplishment (6)	Mission Accomplishment (6)

Note. Percentage of variance accounted for by factor is enclosed in parentheses.

Table 9  
Coefficients of Congruence for the Four-Factor Solutions

AACOM sample	Mechanized infantry sample			
	Unit Climate	Supervisory Leadership	Group Cohesion	Mission Accomplishment
Unit Climate	.97	.68	.57	.77
Supervisory Leadership	.69	.99	.58	.68
Group Cohesion	.58	.57	.98	.62
Mission Accomplishment	.66	.68	.69	.92

## CONCLUSIONS

The Supervisory Leadership dimension in the original GOQ was found, nearly intact, in both the five- and the four-factor solutions in both samples. This factor received the strongest empirical support of any original dimension. It accounted for the highest percentage of total variance of any factor in both the four- and five-factor solutions, for both the AADCOM and mechanized infantry samples. Admittedly, Group Cohesion, Supervisory Leadership, and Unit Climate all accounted for essentially the same amount of total item variance (i.e., 9% to 12%) across all factor solutions.

Unit Climate was also a distinct factor on both five- and four-factor analyses in both samples. However, it was not quite as stable across samples in factor loadings as was Supervisory Leadership. The empirical definition of Unit Climate is broader than that hypothesized in the original GOQ.

The Group Cohesion factor also emerged in both the five- and four-factor analyses and was stable with regard to item composition across the two samples. Thus, this factor, which was not one of the original GOQ dimensions, received empirical support in two independent samples, using two different factor solutions (five versus four factors).

Mission Accomplishment received general support from both five- and four-factor analyses in both samples. This factor was not an original GOQ dimension. Item composition was slightly more stable across samples for the five- than for the four-factor solution.

The fifth factors generated in the two separate sets of data bear little relationship to each other, either empirically (i.e., in terms of the coefficient of congruence) or in terms of item composition (i.e., items loading on the fifth factor at .30 or better in both samples). Thus, although original factor solutions in both samples suggest a five-factor solution as optimum, there may be only four stable factors across samples (Supervisory Leadership, Unit Climate, Group Cohesion, and Mission Accomplishment), with the fifth varying according to the sample's composition.

In summary, the a priori structure of the GOQ was not well supported in either the mechanized infantry sample or the AADCOM sample. Across these two samples there was a stable factor structure. Supervisory Leadership remained intact as in the a priori scales. Unit Climate emerged as a factor, but with more items than in the a priori scales. Co-Worker Interaction and Work Group Processes from the a priori scales were not replicated, but the new factors of Group Cohesion and Mission Accomplishment were found in both samples.

Thus, in these two samples, not only did items generally load onto the same factors, but the amount of total item variance accounted for by the factors remained stable across both four- and five-factor solutions and different samples. As mentioned previously, Group Cohesion, Supervisory Leadership, and Unit Climate were the three most important factors, accounting for roughly 10% of the item variance each across all analyses. Mission Accomplishment was the replicated factor accounting for the least item variance (5% to 6%) across solutions.

These findings, if replicated in other types of Army organizations, could have important practical implications. One could then reasonably assume that across Army organizations, peoples' perceptions of organizational climate are determined by the same general factors, and further, that the psychological importance of these factors remains the same across types of organizations. If such stability in factors determining organizational climate existed across Army organizations, it would narrow to a handful the major issues in organizational climate that the Army managers and policymakers would have to deal with. Also, if the Army designed programs to impact on these issues, they would be equally applicable to various types of Army organizations.

The results of this report, if replicated in other Army organizations, would also be helpful to OESOs since they suggest that it is not necessary to reanalyze data for each new type of organization to discover what elements determine how organizational climate is perceived and the relative psychological importance of each element. In short, assuming these results are reliable, the GOQ, if organized along the lines outlined in this report, could better serve as a diagnostic instrument, one which is known to be equally applicable across various Army organizations.



#### REFERENCES

- Department of the Army. Letter 600-76-2, May 1976. Subject: Organizational effectiveness (OE): Activities and training.
- Department of the Army. Commander's Guide to Organizational Effectiveness, TC 26-1, HQ, September 1978.
- Downey, H. K., Hellriegel, D., Phelps, M., & Slocum, J. W. Organizational climate and job satisfaction: A comparative analysis, Journal of Business Research, 1974, 2, 233-248.
- Evaluation of General Organization Questionnaire, final report. Fort Ord, Calif.: U.S. Army Organizational Effectiveness Center and School, May 1979.
- Harmon, H. H. Modern factor analysis. Chicago: University of Chicago Press, 1967.
- Litwin, G. H., & Stringer, R. A. Motivation and organizational climate. Boston: Harvard University, 1968.
- Meyer, H. H. Achievement motivation and industrial climates. In R. Tagiuri & G. H. Litwin (Eds.), Organizational climate: Explorations of a concept. Boston: Harvard University, 1968, pp. 151-166.
- Muchinsky, P. M. An assessment of the Litwin and Stringer Organization Climate Questionnaire: An empirical and theoretical extension of the Sims and La Follette study. Personnel Psychology, 1976, 29, 371-392.
- Mulaik, S. A. The foundations of factor analysis. New York: McGraw-Hill, 1972, p. 355.
- Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K. S., & Bent, D. H. (Eds.). Statistical package for the social sciences. New York: McGraw-Hill, 1975.
- Schneider, B. Organizational climates: An essay. Personnel Psychology, 1975, 28, 447-479.
- Sims, H. P., & La Follette, W. R. An assessment of the Litwin and Stringer Organization Climate Questionnaire. Personnel Psychology, 1975, 28, 19-38.
- Taylor, J., & Bowers, D. Survey of organizations: A machine-scored, standardized questionnaire instrument. Ann Arbor, Mich.: Institute for Social Research, 1972.
- Walizer, D., & Mietus, J. Development of an organizational survey feedback program for the 32D Air defense command. ARI Technical Report 433, March 1980.
- Woodman, R. W., & King, D. C. Organizational climate: Science or folklore? Academy of Management Review, October 1978, 816-826.

Appendix A

The General Organization Questionnaire

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# ORGANIZATIONAL EFFECTIVENESS

## GENERAL ORGANIZATION QUESTIONNAIRE (GOQ)

THIS QUESTIONNAIRE IS INTENDED TO PROVIDE INFORMATION ABOUT HOW THE MEMBERS OF YOUR ORGANIZATION WORK TOGETHER. THE INFORMATION YOU PROVIDE WILL BE USED BY COMMANDERS/MANAGERS/SUPERVISORS TO IMPROVE THE EFFECTIVENESS OF THE UNIT/ORGANIZATION.

IF THE RESULTS ARE TO BE HELPFUL, IT IS IMPORTANT THAT YOU ANSWER EACH QUESTION AS THOROUGHLY AND FRANKLY AS POSSIBLE. THIS IS NOT A TEST, THERE ARE NO RIGHT OR WRONG ANSWERS.

THE COMPLETED QUESTIONNAIRES WILL BE PROCESSED BY AUTOMATED EQUIPMENT WHICH WILL SUMMARIZE THE ANSWERS IN STATISTICAL FORM SO THAT INDIVIDUALS CANNOT BE IDENTIFIED. PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THE QUESTIONNAIRE OR ANSWER SHEET.

USA ORGANIZATIONAL EFFECTIVENESS TRAINING CENTER  
FORT ORD, CALIFORNIA  
OCTOBER 1977

## INSTRUCTIONS

1. Mark all responses on the machine-readable answer sheet. If you do not find the exact response that fits your case, use the one that is closest to it.
2. Remember, the value of the survey depends upon your being straightforward in answering the questionnaire. Your answer sheets are processed by automated equipment and no one from your command will see them.
3. The answer sheet is designed for automatic scanning of your responses. Items are answered by marking the appropriate response rectangle ( ☐ ) on the answer sheet as illustrated in the following example.

Item #55. I am able to influence my co-workers when we are making group decisions.

Response Scale for Questions 1 - 84.

- 1) I strongly disagree
- 2) I somewhat disagree
- 3) I am neutral
- 4) I somewhat agree
- 5) I strongly agree

In this example, the response is ( ☒ ), I somewhat disagree that I can influence my co-workers when we are making group decisions.

4. Please use a pencil (No 2 is best), and observe carefully these important requirements:

- Make heavy black marks that fill in the numbered rectangle
- Erase cleanly any answer you wish to change
- Make no stray markings of any kind
- Do not write your name or social security number anywhere on the questionnaire or the answer sheet

5. The particular meaning of the term "this unit" will be announced by the person administering the questionnaire. For example, "this unit" may refer to your Company, Battalion, Brigade, etc. Questions about "your supervisor" refer to the person to whom you report directly. Questions about "your co-workers" refer to the people you associate with from day to day in order to get the job done--they usually report to the same supervisor. Questions about "your work group" refer to the entire team of people, including your co-workers and your supervisor(s) who work for a common goal.

6. Turn to side two (GREEN SIDE) and fill in the appropriate unit/org code. Write your code number in the boxes and then pencil mark the corresponding numbered rectangles.

1) ☐ 2) ☒ 3) ☐ 4) ☐ 5) ☐ 6) ☐ 7) ☐ 8) ☐ 9) ☐ 10) ☐

55

ON SIDE TWO (GREEN SIDE), LOCATE ITEM 116 AND ANSWER THE FOLLOWING BACKGROUND INFORMATION ITEMS.

BE SURE THAT THE ITEM NUMBER ON THE ANSWER SHEET IS THE SAME AS THE QUESTIONNAIRE ITEM YOU ARE ANSWERING.

BACKGROUND

116. Service type.

- 1) Military service (active or reserve)
- 2) Civil Service

117. Sex.

- 1) Male
- 2) Female

118. Education.

- 1) Did not finish high school
- 2) High School graduate or GED
- 3) Some college, but not a 4-year degree
- 4) College graduate, 4 year degree
- 5) Graduate degree, or work beyond a 4-year degree

119. Ethnic background.

- 1) White
- 2) Black
- 3) Spanish-Mexican American
- 4) Oriental American
- 5) Other (American Indian, Filipino, Puerto Rican, etc)

120. Marital Status.

- 1) Married
- 2) Single, never married
- 3) Other (divorced, separated, widowed)

121. How long have you been in this unit?

- 1) Less than 3 months
- 2) 3-6 months
- 3) 7-12 months
- 4) 13-24 months
- 5) More than 24 months

122. How long have you been at this installation (this tour of duty)?

- |                       |                        |
|-----------------------|------------------------|
| 1) Less than 3 months | 4) 13-24 months        |
| 2) 3-6 months         | 5) More than 24 months |
| 3) 7-12 months        |                        |

123. How long have you been in the Army, or Civil Service if you are a civilian?

- 1) Less than 12 months
- 2) 12 to 36 months
- 3) 37 months to 6 years
- 4) 7 to 10 years
- 5) more than 10 years

124. Which of the following best describes your career intentions at the present time?

- 1) I will definitely stay until retirement
- 2) I will probably stay until retirement
- 3) I am undecided about staying
- 4) I will stay for now but will probably leave before retirement
- 5) I will definitely leave at the earliest opportunity

125. Military pay grade.

- 1) E-1 - E-2
- 2) E-3 - E-4
- 3) E-5 - E-6
- 4) E-7 - E-9
- 5) W-1 - W-4
- 6) O1 - O2
- 7) O3
- 8) O4 - O5
- 9) O6 or above

126. Which military branch corresponds closest with your primary MOS?

- 1) Infantry
- 2) Field Artillery, Air Defense Artillery
- 3) Armor
- 4) Corps of Engineers
- 5) Signal Corp
- 6) Military Police/Military Intelligence
- 7) Logistics (Ordnance, Quartermaster, Transportation)
- 8) Adjutant General/Finance
- 9) Other (Medical, Dental, Chaplain, etc)

127. Civilian pay grade (GS, WG, WL, WS).

- 1) 1-4
- 2) 5-8
- 3) 9-10
- 4) 11-12
- 5) 13 or above

128. Civilian wage classification.

- 1) GS (Grade Scale)
- 2) WG, WL, WS (Wage Grades)
- 3) Other (NAF, etc.)

TURN THE ANSWER SHEET OVER TO SIDE ONE (BLUE SIDE) AND ANSWER ITEMS 1-75.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

ITEMS ABOUT YOUR UNIT.

1. The information I receive down through formal channels is generally accurate.
2. I get all the information I need about what is going on in other sections or departments in my unit.
3. Work priorities are established in line with the unit's objectives.
4. Meetings in this unit generally accomplish meaningful objectives.
5. Decisions are made in this unit at those levels where the most adequate information is available.
6. Decisions are made in this unit after getting information from those who actually do the job.
7. People in my work group work hard.
8. I get a sense of accomplishment from the work I do.
9. I look forward to coming to work everyday.
10. I want to contribute my best efforts to the unit's mission and my assigned tasks.
11. This unit has a real interest in the welfare of assigned personnel.
12. My job helps me to achieve my personal goals.
13. I have enough time off to take care of my personal and family needs.
14. My performance evaluations and efficiency reports have been helpful to me.
15. This unit places a high emphasis on accomplishing the mission.
16. Workload and time factors are taken into consideration in planning our work group assignments.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

- 17. I would like to stay in this unit as long as I can.
- 18. My unit is respected on this post.
- 19. The job I have is a respected one on this post.
- 20. I am not afraid to make an occasional mistake.
- 21. My unit is willing to try new or improved methods of doing work.
- 22. There is enough emphasis on competition in this unit.
- 23. Rules in this unit are enforced.
- 24. There is little interference from outside units in doing our work.
- 25. There is a good working relationship between civilian and military personnel in this unit.
- 26. My job is directly related to meeting the unit's goals.
- 27. This unit is able to respond to all the demands put on it to accomplish its mission.

ITEMS ABOUT YOUR SUPERVISOR.

- 28. My supervisor lets me know when I have done my job well.
- 29. My supervisor makes it easy to tell him/her when things are not going as well as he/she expects.
- 30. When appropriate, my supervisor supports my decisions.
- 31. It is easy for me to get in to see my supervisor.
- 32. My supervisor emphasizes teamwork.
- 33. When there is disagreement, my supervisor encourages the people who work for him/her to openly discuss their differences.
- 34. I know what my work group is trying to accomplish.
- 35. My supervisor emphasizes mission accomplishment.
- 36. My supervisor encourages us to give our best effort.



RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

- 37. My supervisor maintains high personal standards of performance.
- 38. Rarely do other people up the chain of command make conflicting demands on me while I am at work.
- 39. Unless I ask for help, my supervisor lets me do my work without interfering.
- 40. My supervisor gives clear instructions when he/she assigns me a task.
- 41. My supervisor shows me how to improve my performance.
- 42. My supervisor helps me plan and schedule my work ahead of time.
- 43. My supervisor ensures that all required materials are available to accomplish the job.
- 44. My supervisor is able to be heard by and influence those above him/her.
- 45. My supervisor is highly regarded as a leader by members of my work group.

ITEMS ABOUT YOUR CO-WORKERS.

- 46. My co-workers tell me when they think I have done a good job.
- 47. I have the trust and support of my co-workers.
- 48. My co-workers work together as a team.
- 49. My co-workers encourage each other to give their best effort.
- 50. My co-workers maintain high standards of performance.
- 51. Open and honest discussion is used when there are disagreements among my co-workers.
- 52. My co-workers provide the help I need so I can plan, organize and schedule work ahead of time.
- 53. My co-workers offer each other new ideas for solving job related problems.
- 54. I feel that I am given adequate authority to perform the tasks and responsibilities assigned to me.
- 55. I am able to influence my co-workers when we are making group decisions.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

ITEMS ABOUT YOUR WORK GROUP.

- 56. Information important to our work is widely exchanged within my work group.
- 57. My work group plans together and coordinates its efforts.
- 58. I understand what is expected of me on my job.
- 59. My work group is able to respond on short notice to heavy work demands placed upon it.
- 60. My work group meets all requirements placed on it by higher levels of command.
- 61. The supplies and equipment I receive are adequate to perform my work.
- 62. I am working in the job area for which I have been trained.
- 63. I am getting the training I need to take on more responsibility.
- 64. My supervisor is trained for his/her job.
- 65. My work group has sufficient qualified personnel to accomplish its mission.
- 66. Army standards of order and discipline are maintained in my work group.
- 67. Members of my work group reflect Army standards of military courtesy, appearance and grooming.
- 68. Cooperation is encouraged between work groups in my unit.
- 69. When I am doing a job that requires the assistance of another work group, I usually receive the help I need.

ITEMS ABOUT YOUR PERSONAL SATISFACTION.

- 70. All in all, I am satisfied with my present job.
- 71. All in all, I am satisfied with the people in my work group.
- 72. All in all, I am satisfied with my supervisor.
- 73. All in all, I am satisfied with my unit.
- 74. All in all, I am satisfied with my career in the Army.
- 75. Administering of discipline in my unit is done fairly.

TURN THE ANSWER SHEET OVER TO SIDE TWO (GREEN SIDE) AND ANSWER ITEMS 76-84.

RESPONSE SCALE FOR ITEMS 1-84

- 1) Strongly disagree
- 2) Somewhat disagree
- 3) Undecided
- 4) Somewhat agree
- 5) Strongly agree

- 76. I receive fair and objective efficiency reports in this unit.
- 77. My job provides opportunity for me to advance my skills and/or personal education.
- 78. I know what I have to do to get recognized for doing a good job.
- 79. Work assignments are fairly made in this unit.
- 80. This unit recognizes a person for what he/she does and not just by favoritism.
- 81. Racial problems in my unit are confronted and dealt with fairly.
- 82. A spirit of cooperation exists among races in my unit.
- 83. My unit does not have a drug problem.
- 84. Excessive drinking is not a problem in my unit.

GOQ ANSWER SHEET											PAGE 1 OF 2 PAGES	
STRONGLY DISAGREE 1		SOMEWHAT DISAGREE 2		NEUTRAL 3		SOMEWHAT AGREE 4		STRONGLY AGREE 5				
STANDARD ITEMS												
1.	1	2	3	4	5	41.	1	2	3	4	5	
2.	1	2	3	4	5	42.	1	2	3	4	5	
3.	1	2	3	4	5	43.	1	2	3	4	5	
4.	1	2	3	4	5	44.	1	2	3	4	5	
5.	1	2	3	4	5	45.	1	2	3	4	5	
6.	1	2	3	4	5	46.	1	2	3	4	5	
7.	1	2	3	4	5	47.	1	2	3	4	5	
8.	1	2	3	4	5	48.	1	2	3	4	5	
9.	1	2	3	4	5	49.	1	2	3	4	5	
10.	1	2	3	4	5	50.	1	2	3	4	5	
11.	1	2	3	4	5	51.	1	2	3	4	5	
12.	1	2	3	4	5	52.	1	2	3	4	5	
13.	1	2	3	4	5	53.	1	2	3	4	5	
14.	1	2	3	4	5	54.	1	2	3	4	5	
15.	1	2	3	4	5	55.	1	2	3	4	5	
16.	1	2	3	4	5	56.	1	2	3	4	5	
17.	1	2	3	4	5	57.	1	2	3	4	5	
18.	1	2	3	4	5	58.	1	2	3	4	5	
19.	1	2	3	4	5	59.	1	2	3	4	5	
20.	1	2	3	4	5	60.	1	2	3	4	5	
21.	1	2	3	4	5	61.	1	2	3	4	5	
22.	1	2	3	4	5	62.	1	2	3	4	5	
23.	1	2	3	4	5	63.	1	2	3	4	5	
24.	1	2	3	4	5	64.	1	2	3	4	5	
25.	1	2	3	4	5	65.	1	2	3	4	5	
26.	1	2	3	4	5	66.	1	2	3	4	5	
27.	1	2	3	4	5	67.	1	2	3	4	5	
28.	1	2	3	4	5	68.	1	2	3	4	5	
29.	1	2	3	4	5	69.	1	2	3	4	5	
30.	1	2	3	4	5	70.	1	2	3	4	5	
31.	1	2	3	4	5	71.	1	2	3	4	5	
32.	1	2	3	4	5	72.	1	2	3	4	5	
33.	1	2	3	4	5	73.	1	2	3	4	5	
34.	1	2	3	4	5	74.	1	2	3	4	5	
35.	1	2	3	4	5	75.	1	2	3	4	5	
36.	1	2	3	4	5	DO NOT WRITE IN THIS SPACE  CASE/SEQUENCE NUMBER      CARD # <div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 5px;"> <span style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">(76)</span> <span style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">(77)</span> <span style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">(78)</span> <span style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">(79)</span> <span style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">(80)</span> </div> Numbers in ( ) are for card punching purposes						
37.	1	2	3	4	5							
38.	1	2	3	4	5							
39.	1	2	3	4	5							
40.	1	2	3	4	5							

## STANDARD ITEMS (CONTINUED)

76. 1 2 3 4 5  
 77. 1 2 3 4 5  
 78. 1 2 3 4 5  
 79. 1 2 3 4 5

80. 1 2 3 4 5  
 81. 1 2 3 4 5  
 82. 1 2 3 4 5  
 83. 1 2 3 4 5  
 84. 1 2 3 4 5

## SUPPLEMENTAL ITEMS

85. 1 2 3 4 5 6 7 8 9 0 (10)  
 86. 1 2 3 4 5 6 7 8 9 0 (11)  
 87. 1 2 3 4 5 6 7 8 9 0 (12)  
 88. 1 2 3 4 5 6 7 8 9 0 (13)  
 89. 1 2 3 4 5 6 7 8 9 0 (14)  
 90. 1 2 3 4 5 6 7 8 9 0 (15)

91. 1 2 3 4 5 6 7 8 9 0 (16)  
 92. 1 2 3 4 5 6 7 8 9 0 (17)  
 93. 1 2 3 4 5 6 7 8 9 0 (18)  
 94. 1 2 3 4 5 6 7 8 9 0 (19)  
 95. 1 2 3 4 5 6 7 8 9 0 (20)

96. 1 2 3 4 5 6 7 8 9 0 (21)  
 97. 1 2 3 4 5 6 7 8 9 0 (22)  
 98. 1 2 3 4 5 6 7 8 9 0 (23)  
 99. 1 2 3 4 5 6 7 8 9 0 (24)  
 100. 1 2 3 4 5 6 7 8 9 0 (25)

101. 1 2 3 4 5 6 7 8 9 0 (26)  
 102. 1 2 3 4 5 6 7 8 9 0 (27)  
 103. 1 2 3 4 5 6 7 8 9 0 (28)  
 104. 1 2 3 4 5 6 7 8 9 0 (29)  
 105. 1 2 3 4 5 6 7 8 9 0 (30)

106. 1 2 3 4 5 6 7 8 9 0 (31)  
 107. 1 2 3 4 5 6 7 8 9 0 (32)  
 108. 1 2 3 4 5 6 7 8 9 0 (33)  
 109. 1 2 3 4 5 6 7 8 9 0 (34)  
 110. 1 2 3 4 5 6 7 8 9 0 (35)

111. 1 2 3 4 5 6 7 8 9 0 (36)  
 112. 1 2 3 4 5 6 7 8 9 0 (37)  
 113. 1 2 3 4 5 6 7 8 9 0 (38)  
 114. 1 2 3 4 5 6 7 8 9 0 (39)  
 115. 1 2 3 4 5 6 7 8 9 0 (40)

Note: Numbers in ( ) are for card punching purposes.

## STANDARD BACKGROUND ITEMS

116. 1 2 (41)  
 117. 1 2 (42)  
 118. 1 2 3 4 5 (43)  
 119. 1 2 3 4 5 (44)  
 120. 1 2 3 (45)

121. 1 2 3 4 5 (46)  
 122. 1 2 3 4 5 (47)  
 123. 1 2 3 4 5 (48)  
 124. 1 2 3 4 5 (49)

125. 1 2 3 4 5 6 7 8 9 (50)  
 126. 1 2 3 4 5 6 7 8 9 (51)  
 127. 1 2 3 4, 5 (52)  
 128. 1 2 3 (53)

## SUPPLEMENTAL BACKGROUND ITEMS

129. 1 2 3 4 5 6 7 8 9 (54)  
 130. 1 2 3 4 5 6 7 8 9 (55)  
 131. 1 2 3 4 5 6 7 8 9 (56)  
 132. 1 2 3 4 5 6 7 8 9 (57)  
 133. 1 2 3 4 5 6 7 8 9 (58)  
 134. 1 2 3 4 5 6 7 8 9 (59)

## ADMINISTRATIVE ITEMS

## SUPERVISOR CODE

blank 

--	--	--	--

  
 (60) (61) (62) (63) (64)

## UNIT/ORGANIZATION CODE

blank 

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 (65) (66) (67) (68) (69)

## MONTH YEAR

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 (70) (71) (72) (73) (74)

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## CASE/SEQUENCE # CARD #

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 (75) (76) (77) (78) (79) (80)

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 1 ARTAUS ATTN: DRCPM-TDS-TU  
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 22 ARI LIAISON OFFICE  
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 1 USA ENGINEER TOPOGRAPHIC LABS ATTN: EIL-TD-S  
 1 USA MOBILITY EQUIPMENT R AND D COMD ATTN: DRUME-TQ (SCHOOL)  
 1 USA TRAINING BOARD ATTN: ATTG-AIB-TA  
 1 USA MATERIEL SYSTEMS ANALYSIS ACTIVITY ATTN: DRXSY-C  
 1 NAFEC HUMAN ENGINEERING BRANCH  
 1 BATTLE-COLUMBUS LABORATORIES TACTICAL TECHNICAL OFC  
 1 USA ARCTIC TEST CEN ATTN: AMSTE-PL-TS  
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